

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-20 are pending in the application, with 1, 7, 13, 17, and 20 being the independent claims. Any changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

**Rejections Under 35 U.S.C. § 102**

On page two of the Office Action, claims 1, 4-7, 10-13, 16, 17, and 19 stand rejected under 35 U.S.C. § 102(b) as being allegedly unpatentable over U.S. patent number 5,870,432 to Kerckhove (herein "Kerckhove"). Applicant respectfully traverses these rejections because the cited reference fails to disclose, teach, or suggest all of the features of the claimed invention.

In Fig. 2 and col. 10, lines 2-6, Kerckhove does not teach, suggest, or disclose explicit parameters of a target impulse response including a number of samples or taps.

At a minimum, Kerckhove does not teach, suggest, or disclose "the transversal equalizer targets a target impulse response having N taps, where N and M are integers and  $N < (M+1)$ ." Therefore Kerckhove does not anticipate claims 1 and 17.

Additionally, at a minimum, Kerckhove does not teach, suggest, or disclose targeting "a target impulse response having N samples, wherein N and M are integers and  $N < (M+1)$ ." Therefore Kerckhove does not anticipate claims 7 and 13.

Claims 4-6, 10-12, 16, and 19 are dependent on their respective non-obvious independent claims 1, 7, 13, and 17. Thus, claims 4-6, 10-12, 16, and 19 are patentable for at least these reasons and further in view of their own features.

Applicant respectfully requests that this rejection of claims 1, 7, 13, and 17 and their respective dependent claims 4-6, 10-12, 16, and 19 be removed and that these claims be passed to allowance.

**Rejections Under 35 U.S.C. § 103**

On page four of the Office Action, claims 2, 8, 14, 18, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kerckhove in view of U.S. Patent No. 6,088,386 to Spruyt *et al* (herein "Spruyt"). Applicant respectfully traverses this rejection.

Applicant respectfully submits that neither Kerckhove nor Spruyt, alone or in combination, teach, suggest, or disclose targeting "a target impulse response having N taps, where N and M are integers and  $N < (M+1)$ " as contained in independent claims 1 and 17. Furthermore, Kerckhove and Spruyt, alone or in combination, fail to teach, suggest, or disclose targeting "a target impulse response having N samples, wherein N and M are integers and  $N < (M+1)$ " as contained in independent claims 7, 13, and 20.

Therefore, dependent claims 2, 8, 14, and 18 which depend upon independent claims 1, 7, 13, and 17 are thus allowable for at least being dependent from an allowable independent claim, in addition to their own respective features. Furthermore, because neither Kerckhove nor Spruyt, alone or in combination, teach, suggest, or disclose all of the recited claim limitations of claims 2, 8, 14, 18, and 20, a *prima facie* case of

obviousness has not been established. Accordingly, Applicant respectfully requests that this rejection be removed and that these claims be passed to allowance.

On page three of the Office Action, the Examiner rejected claims 3, 9, and 15 under 35 U.S.C. § 103(a) as being unpatentable over Kerckhove. Applicant respectfully traverses the rejection, and requests that it be withdrawn.

With respect to claims 3, 9, and 15, Applicant respectfully submits that Kerckhove fails to teach, suggest or disclose all of the recited claim limitations. Kerckhove fails to teach or suggest the limitation that "N=M" as recited in claims 3, 9, and 15. Therefore, because Kerckhove does not teach or suggest all of the claim limitations of claims 3, 9, and 15, a *prima facie* case of obviousness has not been established.

Furthermore, independent claims 1, 7, and 13 are patentable over Kerckhove for the reasons mentioned above. Therefore, dependent claims 3, 9, and 15 are also allowable since they depend from independent claims 1, 7, and 13, in addition to their own respective features. Accordingly, Applicant respectfully requests that the rejection be removed and that these claims be passed to allowance.

**Claim Objections**

The Examiner has objected to claim 1. The Applicant has amended claim 1 to overcome this objection. This amendment does not narrow the scope of protection. Further, claims 8, 14, and 17 have been amended to correct grammatical errors and improve readability. All amendments are supported by the specification and have not been made to overcome prior art.

**Objections to the Drawings**

The Applicant has amended FIG. 1 in the concurrently attached replacement sheet to accommodate the Examiner's request. The amendments are made to correct FIG. 1 to correspond to the description of FIG. 1 provided in the originally filed specification. The amendments to FIG. 1 do not add new matter. The amendments correct informalities without changing the scope of the claims. Support for this amendment can be found on page 5, lines 6 - 19. Accordingly, Applicant respectfully requests that this amendment be entered.

***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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